

**Title 33**  
**ENVIRONMENTAL QUALITY**  
**Part XV. Radiation Protection**

**Chapter 3. Licensing of Radioactive Material**

**Subchapter D. Specific Licenses**

**§325. General Requirements for the Issuance of Specific Licenses**

A. - C.5.d. ...

D. Financial ~~a~~Assurance and ~~r~~Recordkeeping for ~~d~~Decommissioning ~~have been established as follows:~~

1. Each applicant for a specific license authorizing the possession and use of unsealed radioactive material of half-life greater than 120 days and in quantities exceeding  $10^5$  times the applicable quantities set forth in LAC 33:XV.399.Appendix D shall submit a decommissioning funding plan as described in Paragraph D.~~65~~ of this Section. The decommissioning funding plan must also be submitted when a combination of isotopes is involved if  $R$  divided by  $10^5$  is greater than ~~one~~ (unity rule), where  $R$  is defined here as the sum of the ratios of the quantity of each isotope to the applicable value in LAC 33:XV.399.Appendix D.

2. Each holder of, or applicant for, any specific license authorizing the possession and use of radioactive material of half-life greater than 120 days and in quantities exceeding  $10^{12}$  times the applicable quantities set forth in LAC 33:XV.399.Appendix D (or when a combination of isotopes is involved if  $R$ , as defined in Paragraph D.1 of this Section, divided by  $10^{12}$  is greater than 1), shall submit a decommissioning funding plan as described in Paragraph D.6 of this Section. The decommissioning funding plan must be submitted to the department by December 2, 2005.

23. Each applicant for a specific license authorizing possession and use of radioactive material of half-life greater than 120 days and in quantities specified in Paragraph D.~~54~~ of this Section shall either:

a. submit a decommissioning funding plan as described in Paragraph ~~LAC 33:XV.325, D.65~~ of this Section; or

b. submit a certification that financial assurance ~~arrangement~~ for decommissioning has been provided in the amount prescribed by Paragraph D.~~54~~ of this Section using one of the methods described in Paragraph D.~~76~~ of this Section. For an applicant, this certification may state that the appropriate assurance will be obtained after the application has been approved and the license issued, but prior to the receipt of licensed material. If the applicant defers execution of the financial instrument until after the license has been issued, a signed original of the financial instrument obtained to satisfy the requirements of Paragraph D.~~76~~ of this Section shall be submitted to the Office of Environmental ~~Compliance Services, Emergency and Radiological Services~~ Permits Division, before receipt of licensed material. If the applicant does not defer execution of the financial instrument, the applicant shall submit to the Office of Environmental ~~Compliance Services, Emergency and Radiological Services~~ Permits Division, as part of the certification, a ~~copy~~ signed original of the financial instrument obtained to satisfy the

requirements of Paragraph D.76 of this Section.

43. Licenses Requiring Financial Assurance

~~a. Each holder of a specific license issued on or after the effective date of these regulations, which is of a type described in Paragraph LAC 33:XV.325, D.1 or 2, of this Section shall provide financial assurance for decommissioning in accordance with the criteria set forth in this Section.~~

~~ab. Each holder of a specific license issued before the effective date of these regulations and of a type described in Paragraph D.1 of this Section shall submit, on or before July 20, 1992, a decommissioning funding plan, as described in Paragraph D.6 of this Section, or a certification of financial assurance for decommissioning in an amount at least equal to \$1,125,000\$750,000 in accordance with the criteria set forth in this Section. If the licensee submits the certification of financial assurance rather than a decommissioning funding plan at this time, the licensee shall include a decommissioning funding plan in any application for license renewal.~~

~~be. Each holder of a specific license issued before the effective date of these regulations and of a type described in Paragraph D.2 of this Section shall submit, on or before July 20, 1992, a certification of financial assurance for decommissioning, or a decommissioning funding plan, as described in Paragraph D.65 of this Section, in accordance with the criteria set forth in this Section.~~

~~cd. Any licensee who has submitted an application before July 20, 1992, for renewal of license in accordance with LAC 33:XV.333 shall provide financial assurance for decommissioning in accordance with Paragraphs D.1 and 2 of this Section. This assurance shall be submitted when this rule becomes effective.~~

d. Waste collectors and waste processors, as defined in LAC 33:XV.499.Appendix D, shall provide financial assurance in an amount based on a decommissioning funding plan as described in Paragraph D.6 of this Section. The decommissioning funding plan shall include the cost of disposal of the maximum amount (in curies) of radioactive material permitted by license, and the cost of disposal of the maximum quantity, by volume, of radioactive material that could be present at the licensee's facility at any time, in addition to the cost to remediate the licensee's site to meet the license termination criteria of LAC 33:Part XV. The decommissioning funding plan must be submitted by December 2, 2005.

54. The following table lists required amounts of financial assurance for decommissioning by quantity of material. Licensees required to submit the \$1,125,000 amount shall do so by December 2, 2005. Licensees required to submit the \$113,000 or \$225,000 amount shall do so by June 2, 2006. Licensees having possession limits exceeding the upper bounds of this table shall base financial assurance on a decommissioning funding plan.

a.—Greater than $10^4$ but less than or equal to $10^5$ times the applicable quantities of LAC 33:XV.399.Appendix D in unsealed form (for a combination of isotopes, if R, as defined in Paragraph D.1 of this Section, divided by $10^4$ is greater than 1 but R divided by $10^5$ is less than or equal to 1).	<del>\$750,000</del> <u>\$1,125,000</u>
b.—Greater than $10^3$ but less than or equal to $10^4$ times the applicable quantities of LAC 33:XV.399.Appendix D in unsealed form (for a combination of isotopes, if R, as defined in Paragraph D.1 of this Section, divided by $10^3$ is greater than 1 but R divided by $10^4$ is less than or equal to 1).	<del>\$150,000</del> <u>\$225,000</u>
e.—Greater than $10^{10}$ times the applicable quantities of LAC 33:XV.399.Appendix D in sealed sources or plated foils (for a combination of isotopes, if R, as defined in Paragraph D.1 of this Section, divided by $10^{10}$ is greater than 1).	<del>\$75,000</del> <u>\$113,000</u>

65. Each decommissioning funding plan shall contain a cost estimate for decommissioning and a description of the method of assuring funds for decommissioning from Paragraph D.76 of this Section, including means of adjusting cost estimates and associated funding levels periodically over the life of the facility. Cost estimates shall be adjusted at intervals not to exceed three years. The decommissioning funding plan shall also contain a certification by the licensee that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning and a signed original of the financial instrument obtained to satisfy the requirements of Paragraph D.76 of this Section.

76. Financial assurance for decommissioning ~~must~~shall be provided by one or more of the following methods.

a. Prepayment. Prepayment is the deposit prior to the start of operation into an account segregated from licensee assets and outside the licensee's administrative control of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs. Prepayment may be in the form of a trust, ~~or~~ escrow account, government fund, certificate of deposit, or deposit of government securities.

b. Surety~~Financial Assurance~~ Method, Insurance, or Other Guarantee Method. These methods guarantee that decommissioning costs will be paid ~~should the licensee default.~~ A surety~~financial assurance~~ method may be in the form of a surety~~financial assurance~~ bond, letter of credit, or line of credit. A parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in LAC 33:XV.399.Appendix B. A parent company guarantee may not be used in

combination with other financial methods to satisfy the requirements of this Section. For commercial corporations that issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in LAC 33:XV.399.Appendix B. For commercial companies that do not issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs may be used if the guarantee and test are as contained in LAC 33:XV.399.Appendix E. For nonprofit entities, such as colleges, universities, and nonprofit hospitals, a guarantee of funds by the applicant or licensee may be used if the guarantee and test are as contained in LAC 33:XV.399.Appendix F. A guarantee by the applicant or licensee may not be used in combination with any other financial methods used to satisfy the requirements of this Section or in any situation where the applicant or licensee has a parent company holding majority control of the voting stock of the company. Any suretyfinancial assurance method or insurance used to provide financial assurance for decommissioning mustshall contain the following conditions.

i. ~~The suretyfinancial assurance method or insurance must be~~ open-ended or, if written for a specified term, such as five years, must be renewed automatically unless 90 days or more prior to the renewal date, the issuer notifies the Office of Environmental ComplianceServices, Emergency and Radiological ServicesPermits Division, the beneficiary, and the licensee of its intention not to renew. ~~The suretyfinancial assurance method or insurance must also provide that the full face amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the department within 30 days after receipt of notification of cancellation.~~

ii. ~~The suretyfinancial assurance method or insurance must be~~ payable to a trust established for decommissioning costs. The trustee and trust must be acceptable to the department. An acceptable trustee includes an appropriate state or federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

iii. ~~The suretyfinancial assurance method or insurance must~~ remain in effect until the department has terminated the license.

c. External Sinking Fund. An external sinking fund shall have deposits made to it at least annually, and be coupled with a ~~suretyfinancial assurance method or insurance~~, the value of which may decrease by the amount being accumulated in the sinking fund. An external sinking fund is a fund established and maintained by setting aside funds periodically in an account segregated from licensee assets and outside the licensee's administrative control in which the total amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund may be in the form of a trust, escrow account, ~~or government fund, certificate of deposit, or deposit of government securities.~~ The ~~suretyfinancial assurance~~ or insurance provisions must be as stated in SubparagraphLAC 33:XV.325.D.76.b of this Section.

d. Statement of Intent. In the case of federal, state, or local government licensees, a statement of intent shall be included containing a cost estimate for decommissioning or an amount based on the table in ParagraphLAC 33:XV.325.D.54 of this Section, and indicating that funds for decommissioning will be obtained when necessary.

e. Arrangement with Governmental Entity. When a governmental entity is assuming custody and ownership of a site, an arrangement shall be made that is deemed

acceptable by such governmental entity.

87. Each person licensed under this Chapter shall keep records of information important to the ~~safe and effective decommissioning~~ of the facility in an identified location until the site is released for unrestricted use. Before licensed activities are transferred or assigned in accordance with LAC 33:XV.331.B, licensees shall transfer all records described in this Paragraph to the new licensee. In this case, the new licensee will be responsible for maintaining these records until the license is terminated. If records important to the decommissioning of a facility are kept for other purposes, reference to these records and their locations may be used. Information the department considers important to decommissioning consists of the following:

a. ~~Records~~ of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations;

b. ~~As-built~~ drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of possible inaccessible contamination such as buried pipes that may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations;

c. ~~Records~~ of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used;

d. ~~Except~~ for areas containing only sealed sources (provided the sources have not leaked or no contamination remains after any leakage has occurred) or ~~radioactive byproduct~~ materials having only half-lives of less than 65 days, a list contained in a single document and updated every two years that shall be kept on the following:

i. all areas designated and formerly designated *restricted areas* as defined in LAC 33:XV.102;

ii. all areas outside of restricted areas that require documentation under ~~LAC 33:XV.325.Subparagraph D.87.a~~ of this Section;

iii. all areas outside of restricted areas where current and previous wastes have been buried, as documented under LAC 33:XV.478; and

iv. all areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in LAC 33:XV.332.E, ~~unrestricted release levels~~ or apply for approval for disposal under LAC 33:XV.461.

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HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by the Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), LR 23:1140 (September 1997), LR 24:2091 (November 1998), amended by the Office of Environmental

Assessment, Environmental Planning Division, LR 26:1017 (May 2000), LR 26:2568 (November 2000), LR 27:1227 (August 2001), amended by the Office of Environmental Assessment, LR 31:44 (January 2005), LR 31:\*\*.

## **Subchapter Z. Appendices**

### **§399. Schedules A and B, and Appendices A, B, C, D, E, and F**

Schedule A – Appendix D, Note, Note. ...

#### **Appendix E**

#### **Criteria Relating To Use of Financial Tests and Self-Guarantee for Providing Reasonable Assurance of Funds for Decommissioning by Commercial Companies That Have no Outstanding Rated Bonds**

A. Introduction. An applicant or licensee may provide reasonable assurance of the availability of funds for decommissioning based on furnishing its own guarantee that funds will be available for decommissioning costs and on a demonstration that the company passes the financial test of Subsection B of this Appendix. The terms of the self-guarantee are in Subsection C of this Appendix. This Appendix establishes criteria for passing the financial test for the self-guarantee and establishes the terms for a self-guarantee.

#### **B. Financial Test**

##### **1. To pass the financial test a company must meet the following criteria:**

a. tangible net worth greater than \$10 million, or at least 10 times the total current decommissioning cost estimate (or the current amount required if certification is used), whichever is greater, for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor;

b. assets located in the United States amounting to at least 90 percent of total assets or at least 10 times the total current decommissioning cost estimate (or the current amount required if certification is used) for all decommissioning activities for which the company is responsible as self-guaranteeing licensee and as parent-guarantor;

c. a ratio of cash flow divided by total liabilities greater than 0.15 and a ratio of total liabilities divided by net worth less than 1.5.

##### **2. In addition, to pass the financial test, a company must meet all of the following requirements.**

a. The company's independent certified public accountant must have compared the data used by the company in the financial test, which is required to be derived from the independently audited year-end financial statements, based on United States generally

accepted accounting practices, for the latest fiscal year, with the amounts in such financial statements. In connection with that procedure, the licensee shall inform the department within 90 days of any matters that may cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test.

b. After the initial financial test, the company shall repeat passage of the test within 90 days after the close of each succeeding fiscal year.

c. If the licensee no longer meets the requirements of Paragraph B.1 of this Appendix, the licensee shall send notice to the department of intent to establish alternative financial assurance as specified in department regulations. The notice shall be sent by certified mail, return receipt requested, within 90 days after the end of the fiscal year for which the year-end financial data show that the licensee no longer meets the financial test requirements. The licensee must provide alternative financial assurance within 120 days after the end of such fiscal year.

C. Company Self-Guarantee. The terms of a self-guarantee that an applicant or licensee furnishes must provide for the following.

1. The guarantee shall remain in force unless the licensee sends notice of cancellation by certified mail, return receipt requested, to the department. Cancellation may not occur until an alternative financial assurance mechanism is in place.

2. The licensee shall provide alternative financial assurance as specified in department regulations within 90 days following receipt by the department of a notice of cancellation of the guarantee.

3. The guarantee and financial test provisions shall remain in effect until the department has terminated the license or until another financial assurance method acceptable to the department has been put into effect by the licensee.

4. The applicant or licensee shall provide to the department a written guarantee (a written commitment by a corporate officer) that states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the department, the licensee will set up and fund a trust in the amount of the current cost estimates for decommissioning.

## **Appendix F**

### **Criteria Relating to Use of Financial Tests and Self-Guarantee For Providing Reasonable Assurance of Funds For Decommissioning by Nonprofit Colleges, Universities, and Hospitals**

A. Introduction. An applicant or licensee may provide reasonable assurance of the availability of funds for decommissioning based on furnishing its own guarantee that funds will

be available for decommissioning costs and on a demonstration that the applicant or licensee passes the financial test of Subsection B of this Appendix. The terms of the self-guarantee are in Subsection C of this Appendix. This Appendix establishes criteria for passing the financial test for the self-guarantee and establishes the terms for a self-guarantee.

B. Financial Test

1. For colleges and universities, to pass the financial test a college or university must meet either the criteria in Subparagraph B.1.a or the criteria in Subparagraph B.1.b of this Appendix:

a. for an applicant or licensee that issues bonds, a current rating for its most recent uninsured, uncollateralized, and unencumbered bond issuance of AAA, AA, or A as issued by Standard and Poors (S&P), or Aaa, Aa, or A as issued by Moodys;

b. for an applicant or licensee that does not issue bonds, unrestricted endowment consisting of assets located in the United States of at least \$50 million, or at least 30 times the total current decommissioning cost estimate (or the current amount required if certification is used), whichever is greater, for all decommissioning activities for which the college or university is responsible as a self-guaranteeing licensee.

2. For hospitals, to pass the financial test a hospital must meet either the criteria in Subparagraph B.2.a or the criteria in Subparagraph B.2.b of this Appendix:

a. for an applicant or licensee that issues bonds, a current rating for its most recent uninsured, uncollateralized, and unencumbered bond issuance of AAA, AA, or A as issued by Standard and Poors (S&P), or Aaa, Aa, or A as issued by Moodys;

b. for an applicant or licensee that does not issue bonds, all of the following tests must be met:

i. total revenues less total expenditures, divided by total revenues, shall be equal to or greater than 0.04;

ii. long term debt divided by net fixed assets shall be less than or equal to 0.67;

iii. current assets and depreciation fund, divided by current liabilities, shall be greater than or equal to 2.55;

iv. operating revenues shall be at least 100 times the total current decommissioning cost estimate (or the current amount required if certification is used) for all decommissioning activities for which the hospital is responsible as a self-guaranteeing licensee.



3. In addition, to pass the financial test, a licensee must meet all of the following requirements.

a. The licensee's independent certified public accountant must have compared the data used by the licensee in the financial test, which is required to be derived from the independently audited year-end financial statements, based on United States generally accepted accounting practices, for the latest fiscal year, with the amounts in such financial statements. In connection with that procedure, the licensee shall inform the department within 90 days of any matters coming to the attention of the auditor that cause the auditor to believe that the data specified in the financial test should be adjusted and that the licensee no longer passes the test.

b. After the initial financial test, the licensee shall repeat passage of the test within 90 days after the close of each succeeding fiscal year.

c. If the licensee no longer meets the requirements of Paragraph B of this Appendix, the licensee shall send notice to the department of its intent to establish alternative financial assurance as specified in department regulations. The notice shall be sent by certified mail, return receipt requested, within 90 days after the end of the fiscal year for which the year-end financial data show that the licensee no longer meets the financial test requirements. The licensee must provide alternate financial assurance within 120 days after the end of such fiscal year.

C. Self-Guarantee. The terms of a self-guarantee that an applicant or licensee furnishes must provide for the following.

1. The guarantee shall remain in force unless the licensee sends notice of cancellation by certified mail, and/or return receipt requested, to the department. Cancellation may not occur unless an alternative financial assurance mechanism is in place.

2. The licensee shall provide alternative financial assurance as specified in department regulations within 90 days following receipt by the department of a notice of cancellation of the guarantee.

3. The guarantee and financial test provisions shall remain in effect until the department has terminated the license or until another financial assurance method acceptable to the department has been put into effect by the licensee.

4. The applicant or licensee shall provide to the department a written guarantee (a written commitment by a corporate officer or officer of the institution) that states that the licensee will fund and carry out the required decommissioning activities or, upon issuance of an order by the department, the licensee will set up and fund a trust in the amount of the current cost estimates for decommissioning.

5. If, at any time, the licensee's most recent bond issuance ceases to be rated in any category of "A" or above by either Standard and Poors or Moodys, the licensee shall

provide notice in writing of such fact to the department within 20 days after publication of the change by the rating service.

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